CLAIMS

1.   A method for presenting image data (1) that represents a three-dimensional object (7) in a space, wherein projection data which represents a two-dimensional projection (6) of the object (7) are generated by computational superimposing of multiple image planes, and wherein the projection (6) is displayed on a monitor for viewing by a user,
characterised in that
a sub-area (8) is selected from the projection (6), wherein a detail image (9) having different information content than the projection (6) is generated inside the sub-area (8), and wherein the detail image (9) is displayed within the sub-area (8) on the monitor.

2.   The method in accordance with claim 1,
characterised in that
the detail image is generated in direct or indirect recourse to the image data (1) from which the projection is generated, wherein this image data (1) is collected in a first data record.

3.   The method in accordance with either of claims 1 or 2,
characterised in that
the user selects one of several possible detail images (9), which differ in their information content, particularly in the depth and/or the perspective and/or the type of display and/or the depth of information represented by the detail image (9).

4.   The method in accordance with any of the previous claims,
characterised in that

a detail image (9) is a sub-projection (10) which differs from the projections (6) in that the depth of field is greater.

5. The method in accordance with claim 4,
   characterised in that
   the plane (4) of the sub-projections (10) is parallel to the plane of the projection (6).

6. The method in accordance with any of the previous claims,
   characterised in that
   a separate window is opened on the monitor, in which various sections are displayed by the object (7) within the frame of the selected sub-area (8).

7. The method in accordance with any of the previous claims,
   characterised in that
   a volume presentation or a surface display takes place in the separate window.

8. The method in accordance with any of the previous claims,
   characterised in that
   fewer image planes (4) are superimposed when sub-projections (10) with higher depth of field are generated than when projections (6) are generated.

9. The method in accordance with any of the previous claims,
   characterised in that
   exactly one image plane (4) represents a sub-projection (10).

10. The method in accordance with any of the previous claims,
    characterised in that
    the user has interactive access to the image information in the sub-area (8) by moving a pointer instrument to

scroll among different layers parallel to the projection planes.

11. The method in accordance with any of the previous claims, **characterised in that**
the image data represents a part of a human or animal body and is recorded with a diagnostic system.

12. The method in accordance with claim 11, **characterised in that**
the image data is recorded with a computer tomograph (CT), a magnetic resonance tomograph (MR), or by digital volume tomography (DVT).

13. The method in accordance with claim 11, **characterised in that**
the image data is recorded with a C-arch, which is rotated around the object.

14. The method in accordance with any of the previous claims, **characterised in that**
the detail image is generated with direct or indirect recourse to the image data, which is collected in a second data record, wherein this image data originates from another recording of the object.

15. The method in accordance with claim 14 **characterised in that**
the image data of the second data record is recorded with another device, at another time, or with different device parameters.

16. A system for carrying out the method in accordance with any of the previous claims, **characterised by**
a computer with access to the image data, wherein a program that extracts cross-sectional images from the

image data and superimposes them on the projection (6) is
executed on the computer,
a monitor on which the projection (6) can be displayed,
means that enables the user to define a sub-area (8)
within the projection (6), wherein the program includes a
function that generates a detail image (9) via indirect or
direct recourse to the image data (1), wherein the detail
image (9) has different information content than the
projection (6) and is displayed on the monitor inside the
sub-area (8).

17. The system in accordance with claim 16,
    characterised by
    means with which the user selects one detail image (9)
    from among several.

18. Use of the method in accordance with any of the previous
    claims to present image data in the field of dentistry.